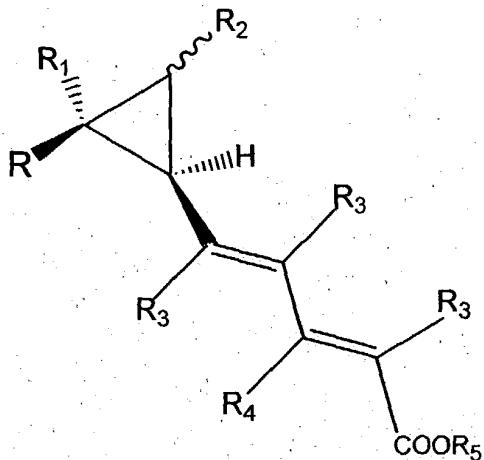


WHAT IS CLAIMED IS:

1 1. A compound of the formula

2



3

4 6 where a wavy line represents a bond in the up or in the down
5 7 configuration,

8 8 a dashed arrow represents a bond in the down configuration,

9 9 a solid arrow represents a bond in the up configuration,

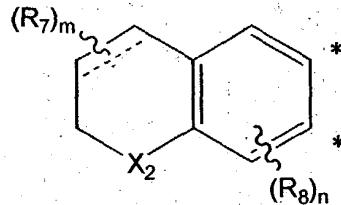
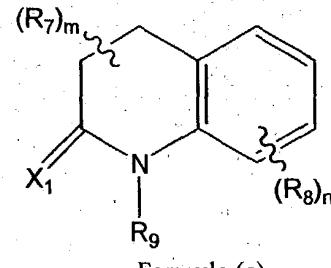
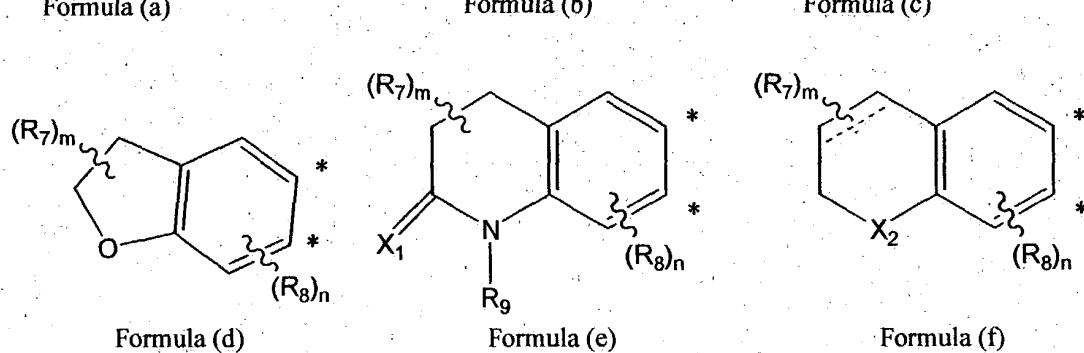
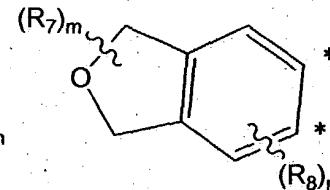
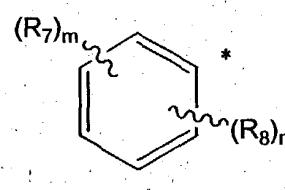
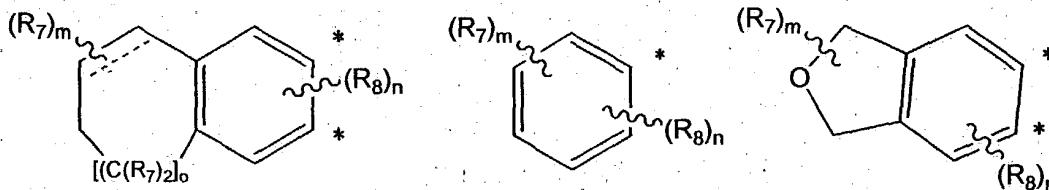
10 10 10 **R**₁ is H, methyl, or ethyl, fluoro-substituted methyl or fluoro-
11 11 substituted ethyl;

12 12 12 **R**₂ is *normal* alkyl of 1 to 4 carbons, fluoro-substituted *normal* alkyl
13 13 13 of 1 to 4 carbons, CH₂OCH₃, CH₂-O-CH₂-CH₃, CH₂-O-CH₂-OCH₃, CH₂-
14 14 14 CH₂-O-CH₃, CH₂SCH₃, CH₂-S-CH₂-CH₃, CH₂-S-CH₂-OCH₃, CH₂-
15 15 15 CH₂-S-CH₃, CH₂-S-CH₂-S-CH₃, CH₂-O-CH₂-S-CH₃, CH₂NHCH₃, CH₂-
16 16 16 NH-CH₂-CH₃, CH₂-NH-CH₂-OCH₃, CH₂-CH₂-NH-CH₃, CH₂-
17 17 17 O-CH₂-NHCH₃;

18 18 **R**₃ is H or F;

19 19 **R**₄ is H, alkyl of 1 to 3 carbons;

1 R_5 is H, alkyl of 1 to 6 carbons, OCH_2OR_6 or OCH_2OCOR_6 where R_6
 2 is alkyl of 1 to 3 carbons, and
 3 R is selected from the groups consisting of the radicals defined by
 4 formulas (a) through (f)



5 where the dashed line in a ring represents a bond, or absence of a
 6 bond,

7 a * denotes a ring carbon to which the pentadienyl-cyclopropyl
 8 group is attached, with the proviso that the pentadienyl-cyclopropyl group
 9 is attached to only one carbon on the ring;

10 X_1 is O or S attached to the adjacent carbon with a double bond, or X_1
 11 represents two hydrogens or R_7 groups attached to the adjacent carbon;

12 X_2 is O or S;

13 m is an integer having the values 0 to 6;

14 n is an integer having the values 0 to 3;

15 o is an integer having the values 0 or 1;

16 R_7 is independently H, alkyl of 1 to 6 carbons, F, Cl, Br or I;

1 R_8 is independently H, alkyl of 1 to 6 carbons, F, Cl, Br, I, OC_{1-6} alkyl
2 or SC_{1-6} alkyl,

3 R_9 is H or alkyl of 1 to 6 carbons, or a pharmaceutically acceptable
4 salt of said compound.

5 2. A compound in accordance with Claim 1 where R_2 is CH_2OCH_3
6 or $CH_2OCH_2CH_3$.

7 3. A compound in accordance with Claim 1 where R_7 is alkyl of 1
8 to 6 carbons.

9 4. A compound in accordance with Claim 1 where R_8 is H or alkyl
10 of 1 to 6 carbons.

11 5. A compound in accordance with Claim 1 where R is represented
12 by **formula (a)**.

13 6. A compound in accordance with Claim 5 where the dashed line
14 in **formula (a)** represents absence of a bond, and where \mathbf{o} is one (1).

15 7. A compound in accordance with Claim 6 where R_2 is CH_2OCH_3
16 or $CH_2OCH_2CH_3$.

17 8. A compound in accordance with Claim 6 where R_7 is alkyl of 1 to
18 6 carbons.

19 9. A compound in accordance with Claim 6 where R_8 is H or alkyl
20 of 1 to 6 carbons.

21 10. A compound in accordance with Claim 1 where R is
22 represented by **formula (b)**.

23 11. A compound in accordance with Claim 10 where R_2 is
24 CH_2OCH_3 or $CH_2OCH_2CH_3$.

25 12. A compound in accordance with Claim 10 where R_7 is alkyl of 1
26 to 6 carbons.

1 13. A compound in accordance with Claim 10 where R_8 is H or
 2 alkyl of 1 to 6 carbons.

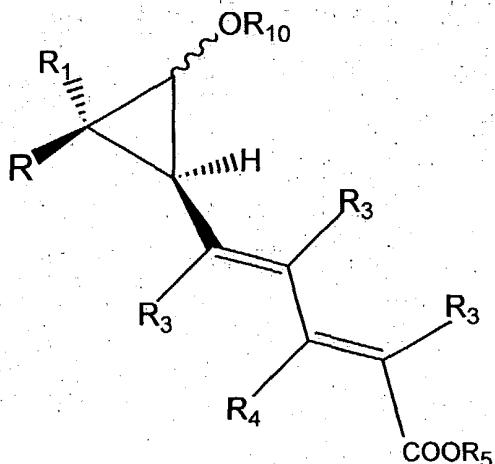
3 14. A compound in accordance with Claim 1 where R is represented
 4 by **formula (c)**.

5 15. A compound in accordance with Claim 1 where R is represented
 6 by **formula (d)**.

7 16. A compound in accordance with Claim 1 where R is represented
 8 by **formula (e)**.

9 17. A compound in accordance with Claim 1 where R is represented
 10 by **formula (f)**.

11 18. A compound of the formula



12 where a wavy line represents a bond in the up or in the down
 13 configuration,

14 a dashed arrow represents a bond in the down configuration,
 15 a solid arrow represents a bond in the up configuration,

16 **R_1** is H, methyl, or ethyl, fluoro-substituted methyl or fluoro-
 17 substituted ethyl;

18 **R_{10}** is CH_3 , CH_2-CH_3 , or CH_2-OCH_3 ,

1 \mathbf{R}_3 is H or F;

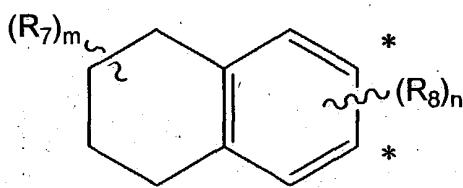
2 \mathbf{R}_4 is H, alkyl of 1 to 3 carbons;

3 \mathbf{R}_5 is H, alkyl of 1 to 6 carbons, OCH_2OR_6 or $\text{OCH}_2\text{OCOR}_6$ where \mathbf{R}_6

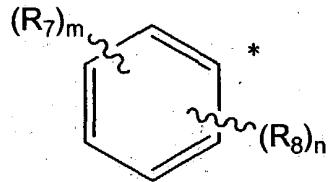
4 is alkyl of 1 to 3 carbons, and

5 \mathbf{R} is selected from the groups consisting of the radicals defined by

6 **formulas (g) and (h)**



7 formula (g)



7 formula (h)

8 where a * denotes a ring carbon to which the pentadienoyl-

9 cyclopropyl group is attached, with the proviso that the pentadienoyl-

10 cyclopropyl group is attached to only one carbon on the ring;

11 \mathbf{m} is an integer having the values 0 to 8;

12 \mathbf{n} is an integer having the values 0 to 3;

13 \mathbf{R}_7 is independently H, alkyl of 1 to 6 carbons, F, Cl, Br or I;

14 \mathbf{R}_8 is independently H, alkyl of 1 to 6 carbons, F, Cl, Br, I, $\text{OC}_{1-6}\text{alkyl}$

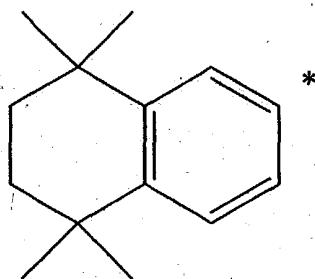
15 or $\text{SC}_{1-6}\text{alkyl}$, or a pharmaceutically acceptable salt of said compound.

16 **19.** A compound in accordance with Claim 18 where \mathbf{R} is represented

17 by **formula (g)**.

18 **20.** A compound in accordance with Claim 19 where \mathbf{R} is represented

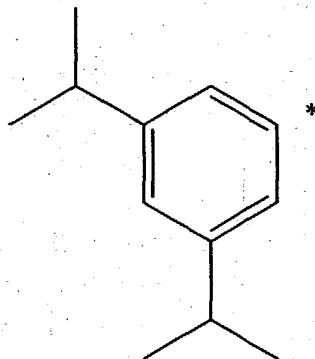
19 by the formula



1

2 where the * denotes a ring carbon to which the pentadienoyl-
 3 cyclopropyl group is attached.

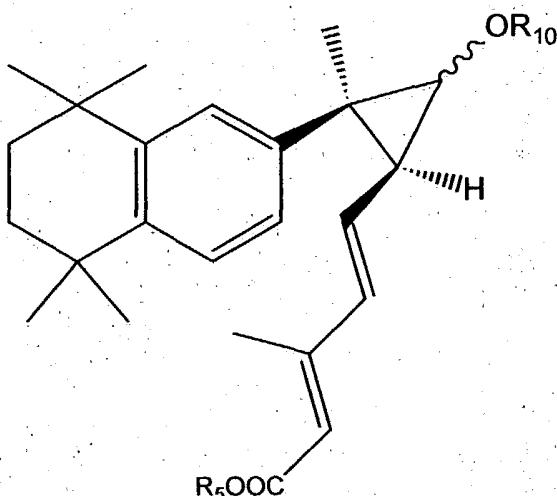
4 21. A compound in accordance with Claim 18 where R is represented
 5 by the formula



6

7 where the * denotes a ring carbon to which the pentadienoyl-
 8 cyclopropyl group is attached.

9 22. A compound of the formula
 10



1 where a wavy line represents a bond in the up or in the down
 2 configuration,

3 a dashed arrow represents a bond in the down configuration,
 4 a solid arrow represents a bond in the up configuration,

5 R_{10} is methyl or ethyl, and

6 R_5 is H, alkyl of 1 to 6 carbons, OCH_2OR_6 or OCH_2OCOR_6 where R_6
 7 is alkyl of 1 to 3 carbons, or a pharmaceutically acceptable salt of said
 8 compound.

9
 10 23. A compound in accordance with Claim 22 where the wavy line
 11 represents a bond in the up configuration.

12 24. A compound in accordance with Claim 23 where R_{10} is methyl.

13 25. A compound in accordance with Claim 24 where R_5 is H, ethyl, or
 14 a pharmaceutically acceptable salt of said compound.

15 26. A compound in accordance with Claim 23 where R_{10} is ethyl.

16 27. A compound in accordance with Claim 26 where R_5 is H, ethyl, or
 17 a pharmaceutically acceptable salt of said compound.

18 28. A compound in accordance with Claim 22 where the wavy line
 19 represents a bond in the down configuration.

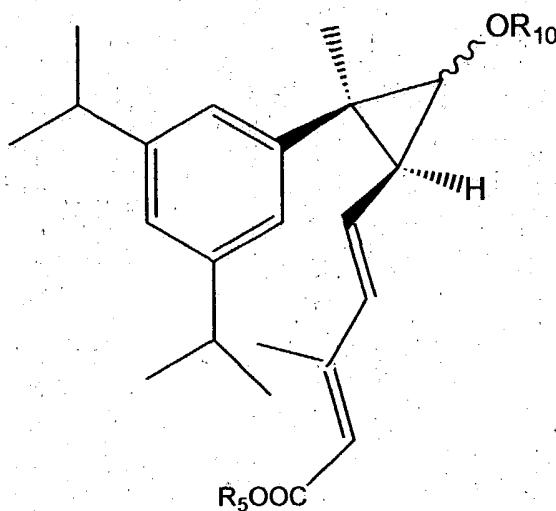
1 29. A compound in accordance with Claim 28 where R_{10} is methyl.

2 30. A compound in accordance with Claim 29 where R_5 is H, ethyl, or
3 a pharmaceutically acceptable salt of said compound.

4 31. A compound in accordance with Claim 28 where R_{10} is ethyl.

5 32. A compound in accordance with Claim 31 where R_5 is H, ethyl, or
6 a pharmaceutically acceptable salt of said compound.

7 33. A compound of the formula



8 9 where a wavy line represents a bond in the up or in the down
10 configuration,

11 a dashed arrow represents a bond in the down configuration,

12 a solid arrow represents a bond in the up configuration,

13 R_{10} is methyl or ethyl, and

14 R_5 is H, alkyl of 1 to 6 carbons, OCH_2OR_6 or OCH_2OCOR_6 where R_6
15 is alkyl of 1 to 3 carbons, or a pharmaceutically acceptable salt of said
16 compound.

17 34. A compound in accordance with Claim 33 where the wavy line
18 represents a bond in the up configuration.

19 35. A compound in accordance with Claim 34 where R_{10} is methyl.

1 36. A compound in accordance with Claim 35 where R_5 is H, ethyl,
2 or a pharmaceutically acceptable salt of said compound.

3 37. A compound in accordance with Claim 34 where R_{10} is ethyl.

4 38. A compound in accordance with Claim 37 where R_5 is H, ethyl, or
5 a pharmaceutically acceptable salt of said compound.

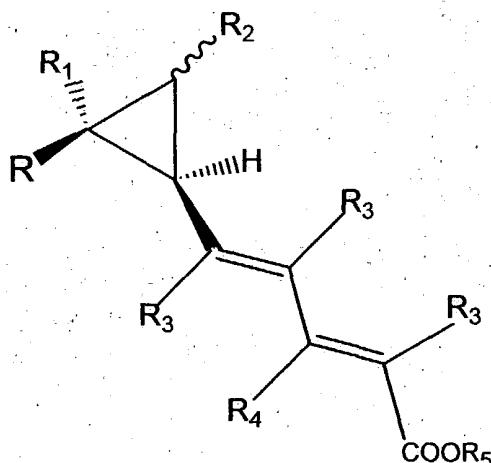
6 39. A compound in accordance with Claim 33 where the wavy line
7 represents a bond in the down configuration.

8 40. A compound in accordance with Claim 39 where R_{10} is methyl.

9 41. A compound in accordance with Claim 40 where R_5 is H, ethyl,
10 or a pharmaceutically acceptable salt of said compound.

11 42. A process for administering to a diabetic mammal to reduce the
12 serum glucose level of said mammal a compound of the formula

13



14

15

16 where a wavy line represents a bond in the up or in the down
17 configuration,

18 a dashed arrow represents a bond in the down configuration,

19 a solid arrow represents a bond in the up configuration,

1 \mathbf{R}_1 is H, methyl, or ethyl, fluoro-substituted methyl or fluoro-
 2 substituted ethyl;

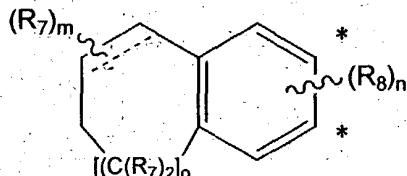
3 \mathbf{R}_2 is *normal* alkyl of 1 to 4 carbons, fluoro-substituted *normal* alkyl
 4 of 1 to 4 carbons, CH_2OCH_3 , $\text{CH}_2\text{-O-CH}_2\text{-CH}_3$, $\text{CH}_2\text{-O-CH}_2\text{-OCH}_3$, $\text{CH}_2\text{-}$
 5 $\text{CH}_2\text{-O-CH}_3$, CH_2SCH_3 , $\text{CH}_2\text{-S-CH}_2\text{-CH}_3$, $\text{CH}_2\text{-S-CH}_2\text{-OCH}_3$, $\text{CH}_2\text{-}$
 6 $\text{CH}_2\text{-S-CH}_3$, $\text{CH}_2\text{-S-CH}_2\text{-S-CH}_3$, $\text{CH}_2\text{-O-CH}_2\text{-S-CH}_3$, CH_2NHCH_3 , $\text{CH}_2\text{-}$
 7 $\text{NH-CH}_2\text{-CH}_3$, $\text{CH}_2\text{-NH-CH}_2\text{-OCH}_3$, $\text{CH}_2\text{-CH}_2\text{-NH-CH}_3$, $\text{CH}_2\text{-}$
 8 $\text{O-CH}_2\text{-NHCH}_3$;

9 \mathbf{R}_3 is H or F;

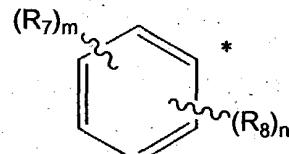
10 \mathbf{R}_4 is H, alkyl of 1 to 3 carbons;

11 \mathbf{R}_5 is H, alkyl of 1 to 6 carbons, OCH_2OR_6 or $\text{OCH}_2\text{OCOR}_6$ where \mathbf{R}_6
 12 is alkyl of 1 to 3 carbons, and

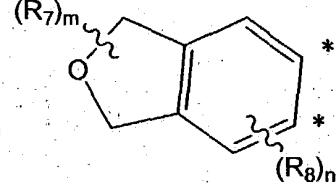
13 \mathbf{R} is selected from the groups consisting of the radicals defined by
 14 formulas (a) through (f)



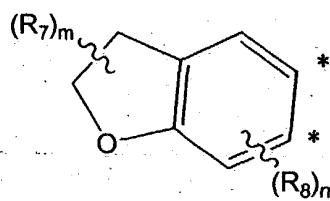
Formula (a)



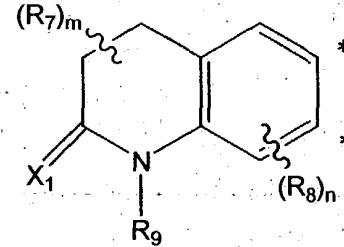
Formula (b)



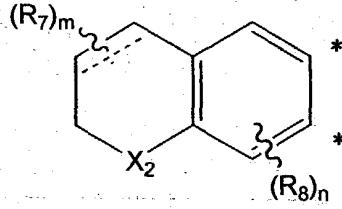
Formula (c)



Formula (d)



Formula (e)



Formula (f)

15 where the dashed line in a ring represents a bond, or absence of a
 16 bond,

1 a * denotes a ring carbon to which the pentadienoyl-cyclopropyl
 2 group is attached, with the proviso that the pentadienoyl-cyclopropyl group
 3 is attached to only one carbon on the ring;

4 X_1 is O attached to the adjacent carbon with a double bond, or X_1
 5 represents two hydrogens, or R_7 groups attached to the adjacent carbon;

6 X_2 is O or S;

7 m is an integer having the values 0 to 6;

8 n is an integer having the values 0 to 3;

9 o is an integer having the values 0 or 1;

10 R_7 is independently H, alkyl of 1 to 6 carbons, F, Cl, Br or I;

11 R_8 is independently H, alkyl of 1 to 6 carbons, F, Cl, Br, I, OC_{1-6} alkyl
 12 or SC_{1-6} alkyl,

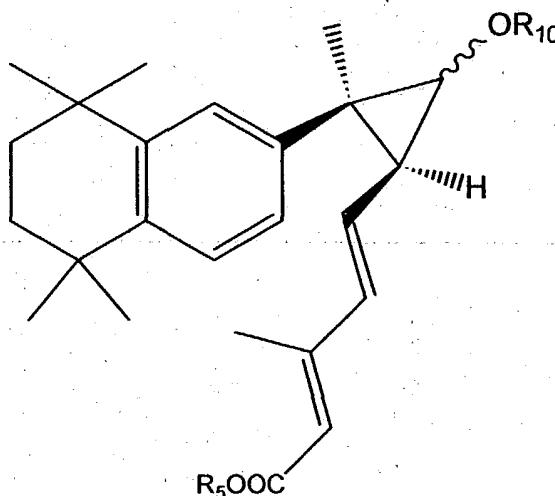
13 R_9 is H or alkyl of 1 to 6 carbons, or a pharmaceutically acceptable
 14 salt of said compound.

15 43. A process in accordance with Claim 42 where the compound used
 16 in the process is in accordance with the formula

17

18

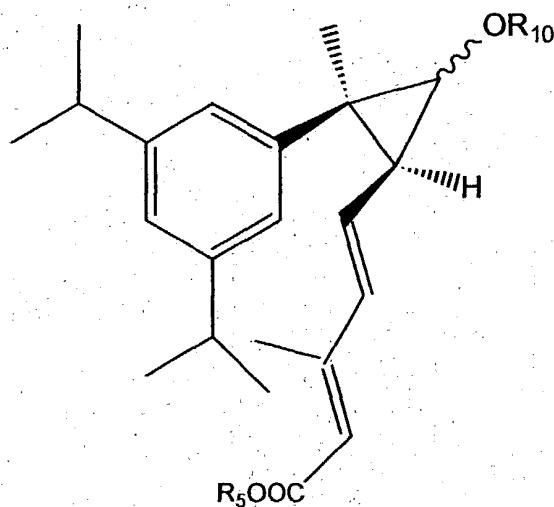
19



1 where \mathbf{R}_{10} is methyl or ethyl.

2 44. A process in accordance with Claim 42 where the compound used
3 in the process is in accordance with the formula

4



5

6 where \mathbf{R}_{10} is methyl or ethyl.

7

8